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ABSTRACT

The literature on journal writing to learn supports journal writing as a means of enabling students to understand and modify their own academic habits and attitudes. Dialogue journal writing adds another component in which the academically skilled adult offers support, insight, and feedback through written interaction. A study was conducted in which a self-report inventory of study habits and attitudes was given before and after a 15-week period in which 38 students exchanged weekly written dialogue with one of two instructors. Three variables in the students' writing (words, questions and evaluatives) were hypothesized to account for changes in study habits and attitudes. Relationships between these variables and two variables in the instructors' writing were also explored. The pretest accounted for 70% of the variance in the posttest, but multiple regression analysis showed that the three student variables account for another 13% of the variance. A correlation was also observed between student and teacher volume of writing. Exploratory descriptive analyses identified functions and topics in student and teacher writing and interactions apparent in 12 randomly selected journals. The findings support the value of dialogue journals to improve the student habits and attitudes of underprepared college students. Contains 42 references. (Author/KM)

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Dialogue Journal Writing and the Initial College Experience of Academically Underprepared Students

by

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A Paper Presented at the

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HE 022 439

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ABSTRACT

Schema-theoretic views of cognition suggest that academically underprepared college students need to develop procedural schemata for use with academic tasks. Metacognitive research suggests that their success may depend upon their ability to develop self-monitoring and self-regulating strategies. If one assumes such students can modify their cognitive processes, then the literature on writing to learn supports journal writing as a means of enabling students to understand and modify their own academic habits and attitudes. Dialogue journal writing adds yet another component, the academically skilled adult offering support, insight, and feedback through the dialectic interaction of written dialogue.

In this study, a self-report inventory of study habits and attitudes was given before and after a 15-week period in which 38 students exchanged weekly written dialogue with one of two instructors. Three variables in the students' writing (words, questions, and evaluatives) were hypothesized to account for changes in study habits and attitudes. Relationships between these variables and two variables in the instructors' writing were also explored.

The pretest accounted for 70% of the variance in the posttest, but multiple regression analysis showed that the three student variables accounted for another 13% of the variance ($p<.001$). A correlation ($r=.80$, $p<.001$) was also observed between student and teacher volume of writing. Finally, exploratory descriptive analyses identified functions and topics evident in student and teacher writing as well as interactions apparent in 12 randomly selected journals. The findings support dialogue journals as a means of enhancing the initial college experience of underprepared students, improving their study habits and attitudes through supportive involvement with a caring member of the college faculty.

Introduction

Transition to college is a challenge for all students, but for academically underprepared students, the adjustment is especially complex. Open enrollment policies at public colleges have resulted in unprecedented numbers of students entering college with reading, writing, and computational skills inadequate to meet the demands of college work. At one time, such students were accorded the "right" to fail: they found ways to remedy their own deficiencies, or they exited after a semester or two, victims of what some critics called a revolving door (Rouche, 1968, p. 2). In recent years, however, colleges (especially community colleges) have mounted intensive efforts to redress the inequities of "an educational system that has failed in countless ways for countless reasons to educate all its youth" (Shaughnessy, 1977, p. 291).

Typically, programs for underprepared students include basic skills courses and support services such as counseling and tutoring (Maxwell, 1981). However urgently basic skills courses are needed, however, many students feel stigmatized and unfairly barred from regular college classes. Basic skills courses may have unacceptably high dropout and absentee rates. Worse yet, students often do not avail themselves of needed support services like tutoring. The pressing question is how to address the needs of students for whom lack of basic skills is only the first, most obvious problem. Underprepared students often appear unaware of the expected behavior patterns that we in academe take for granted. They are usually unable to assess their own needs or predict the likelihood of their own success, and are therefore often indifferent to services that could help. If academically underprepared students are to persist in college and succeed, interventions beyond basic skills courses and tutoring are needed. The present

study was an investigation of one such intervention, a dialogue journal. Structured to address the needs of underprepared students, the journal provided a forum for an extended written dialogue between students and their instructor in a study skills course.

Theoretical Assumptions

This research presupposes that cognitive processes are modifiable. However shocking it may be for high school graduates to arrive at a community college with barely junior high level abilities, this study rests on the belief that in fact, the vast majority of such students can be taught to develop the reading, writing, and computational skills as well as the strategic behaviors and values needed for them to become competent in the academic mainstream. The proposition that structured dialogue journal writing might promote academic success for such students is theoretically supported by the literature on writing to learn which is in turn supported by research on schema theory and metacognition. A further assumption is that the dialectic process typified by dialogue between a novice and a more skilled adult is one which can enhance cognitive growth.

Psychologists have tried to validate a construct of human intelligence as essentially immutable, even though they cannot reach agreement on exactly what it is that intelligence tests measure (Resnick, 1976). Alternatively, criterion-referenced diagnostic tests could lead to "intervention designed to enhance the level of cognitive functioning" (p. 9). Feuerstein, Rand, Hoffman, and Miller (1980) developed instructional and evaluative instruments for just such a goal. Using their methods, a teacher (or "mediator") frames the experience for the learner, makes explicit the learning goals and meaning of the learning material, and regulates the behavior of the learner so that success and progress are

virtually inevitable. In this process, the mediator also transmits cultural attitudes and values. The premise of this study is that underprepared college students can achieve more effective levels of intellectual functioning and that the structured dialogue journal may serve as much the same sort of intervention as those created by the Feuerstein group.

Previous research on predicting college success examined variables not very susceptible to change, like socio-economic status, parents' educational level, IQ test scores, and the like. By contrast, Easton and Ginsberg (1985) tried to identify behavior that accounted for success and could be taught by interviewing students who were "high risk" for failure according to placement test scores and high school records, but who nonetheless earned outstanding grades. They found that such students consciously (1) tried to increase their active involvement both in and out of the classroom; (2) used a cycles of self-awareness, self-evaluation, and self-improvement; (3) practiced selectivity in deciding what to study, in planning when and how to study, even in choosing friends whose academic goals and values matched their own; and (4) maintained high levels of goal orientation. The students had learned academic behaviors not previously used, further support for the premise that underprepared students can adapt their behavior to improve their intellectual achievement.

Schemata are cognitive organizational structures which enable us to take in, categorize, and subsequently access information (Bartlett, 1932). They can also be seen as procedural routines we use to interact with our surroundings (Rumelhart, 1980). Schemata seen as knowledge networks of interconnected data are what enable us to know that both *food* and *money* are details of the networks for *restaurant* and *supermarket*. The process-oriented schemata, however, enable

us to know that how one chooses the food, how it is packaged, and how we pay are different in the restaurant than they are in the supermarket. Likewise, we know that behavior patterns expected in a fast food burger joint are different than in an elegant French restaurant. For the person who has never been in an elegant French restaurant, however, procedural schemata for how to behave may be quite rudimentary or even non-existent. So it is with underprepared college students, most of whom simply lack the background and experience to know what behavior is expected in college.

Vygotsky (1934/1962) theorized that cognitive development occurs in two stages: first, acquisition of knowledge, and then second, increasing conscious control over that knowledge. In the past decade, investigators such as Brown (1978) and Flavell (1979) have established the term "metacognition" to refer to the self-monitoring and self-regulating cognitive activities of Vygotsky's second stage. These mental operations--in effect, executive functions--enable us to more effectively comprehend, learn, solve problems, complete tasks, and conduct other cognitive endeavors. Among other academic deficiencies, underprepared college students lack sufficient metacognitive ability to assess their needs, monitor the quality of their own learning, adjust to consider other alternatives when a strategy does not achieve the purpose, and so on.

Dialogue with a more skilled adult as a means of cognitive development is a process described by Vygotsky (1962/1934; 1978/1930-35) who saw language and social interaction as instruments by which people engage and affect their world. The interaction is dialectic, a dynamic that results in continuous cognitive growth, especially when an adult provides for a less experienced learner the dialogue and mediation which foster development. By engaging in written dialogue

with an instructor, students may advance from naive or primitive strategies to more polished ones and eventually to mastery and internalization of effective academic tactics. When the dialogue is written, not oral, the vigor of dialectic interaction is enhanced. Oral dialogue can fuel the dialectic, but written dialogue causes both parties to reflect on and re-examine ideas in ways not usually typical of more spontaneous oral dialogue.

Writing to Learn

Many investigators have made the connection between writing and learning more explicit, work that originated with studies of writing process. Through observing what writers do as they write, researchers discovered that the writing process resulted in greater clarity in understanding what one knew, or, in a word, learning. Writing enhances learning because the process is continuously reinforcing; visual, cognitive, and kinesthetic processes all converge, with learning further reinforced by the resulting concrete record (Emig, 1977). The use of journal writing to learn in all disciplines has been promoted by many eloquent advocates, perhaps foremost among them, Fulwiler (1982).

Journal writing to learn study skills was endorsed by several practitioners (Crowley, 1984; Frager & Malena, 1986; Hoffman, 1983) who reported their methods without mounting controlled investigations. Langer (1986), on the other hand, studied the relative effects on topic knowledge of three textbook study methods: answering study questions, taking notes on the text, and writing essays. The latter produced the greatest gains in topic knowledge, apparently because study questions and notetaking led students to reproduce content as given in the text, while composing essays led them to reconstruct content, focus on larger issues, and integrate new ideas with previously learned material.

In sum, writing involves transactions that activate, instantiate, and refine schemata. Writers "not only enter into the act, but change during it" (Shanklin, 1981, p. 138). The reflexive nature of writing very nearly forces a metacognitive posture. Journal writing has always been favored by writing-to-learn proponents and indeed, is theoretically supported. Little empirical evidence existed prior to 1980, however, partially because journal writing takes nearly unlimited forms, depending on the aims of the user. In the early 1980s, however, two developments changed the character of research on journal writing: first, educational researchers began using ethnographic techniques; and second, the dialogue journal became the first concretely defined journal format to be the object of a number of studies.

Goodkin (1982) and Lowenstein (1982) both conducted ethnographic inquiries on journal writing processes. Lowenstein's findings stressed temporal stages in personal or academic growth achieved through journal writing by six journal writers she interviewed in depth. Goodkin, on the other hand, stressed the transactional and constructive processes through which journal writing fosters cognitive development. She found that journal writing, especially if shared with others, could link learning about oneself and learning about the world.

Dialogue Journals

The dialogue journal was first identified as an instructional technique by Staton, Shuy, and Kreeft, who defined the process as a "conversation in writing carried on over an extended length of time, with each partner having equal and frequent . . . turns" (1982a, p. 11). In a series of 12 investigations, Staton, Shuy and Kreeft (1982b) studied the journals produced by one Los Angeles teacher and her sixth grade students in daily exchanges that were continuous throughout

the school year. This teacher employed the journals for goals objectives like use of writing as a communicative tool, resolution of classroom issues, and assessment of student needs. After that landmark study, dialogue journal writing captured the imagination of many educators who adapted them for a variety of purposes: second language acquisition (Meloni, 1983); language development in the deaf (Staton, 1985); career and academic counseling for migrant youth (Davis, 1983); improving writing performance and attitudes (Markman, 1983; Turewicz, 1983); professional development among teachers (Agor, 1985; Roderick & Berman, 1984); and perhaps most important for this study, fostering the development of practical reasoning ability (Staton, 1984).

In the present study, the dialogue journal was structured to draw students' attention to academic issues. In weekly exchanges, students were specifically prompted to (a) respond to their instructor's weekly journal entry; (b) note positive and negative aspects of their academic experiences during the preceding week; and (c) record upcoming assignments. Although the journals included other introductory, mid-term, and concluding sections which encouraged self-reflection and self-assessment, the data for this study were the texts written by students and instructors on the weekly sheets.

Insert Figure 1 about here

The instructors engaged in this weekly dialogue for the express purpose of helping students develop greater self-awareness of their academic behavior and its consequences. Instructor entries were structured to encourage students to clarify their academic goals and consider the range of alternatives by which

those goals might be more effectively achieved. Most importantly, instructors endeavored to phrase their entries as questions, suggestions and praise rather than as prescriptive or judgmental statements. The study was designed to examine the mechanisms by which this structured written dialogue might affect students' academic habits and attitudes.

Overview of the Study

The purpose of the study was to analyze in depth the structured dialogue journals of underprepared community college students. Review of the literature drew attention to three variables: students who (a) wrote more, (b) asked more questions, and (c) made more evaluative statements were presumed to be more engaged in acquiring procedural schemata for academic tasks; self-monitoring and self-regulating abilities; and cognitive development deriving from the activity of writing and the dialogic interaction with the instructor. Multiple regression analysis was used to test the hypothesis that these three variables do in fact account for changes in students' self-reported study habits and attitudes. A supplementary analysis was also conducted to explore two variables in the instructors' journal writing (number of words and questions) and their possible relationship to student variables. Since the structured dialogue journal was a newly modified form of dialogue journal, several descriptive research questions were used to explore functions and topics in both instructors' and students' writing. Last, interactions evident in 12 randomly selected journals were descriptively analyzed.

Setting and Subjects

The study was conducted at a small community college in a rural area about 100 miles from a major metropolitan center. Only 30% of its full-time students

reside in the county, however, while over two-thirds come from the nearby city and its surrounding suburban counties. Aside from the unique blend of rural, urban, and suburban students, it is otherwise a typical community college, with a somewhat higher proportion of minority students than national population averages and just over half of the students recipients of some form of financial aid. All new students are given basic skills placement tests and, if test results indicate a need, are required to enroll in non-credit courses to correct the weaknesses. Students placed in two or more such courses are also required to enroll in "Academic Development," a course which meets one hour per week and includes study skills instruction and orientation components.

Procedures and Instruments

The structured dialogue journal was originally designed for use in this course and was used for three years prior to this study, years that afforded pilot testing of the procedures and structure of the journal. The first 15 minutes of each class meeting was devoted to the journals, with students reading their instructor's comments from the preceding week and completing the next Weekly Progress Sheet (Figure 1). The instructor then collected the journals to read and write responses prior to the next class.

Two instructors engaged in the dialogue journal writing with 38 students: 23 were in sections taught by the researcher, 15 in sections taught by another instructor. Both instructors had 10-12 years experience teaching developmental and regular college English courses, as well as several years experience teaching the Academic Development course. The texts written by both teachers and students in these 38 journals were tabulated for total number of words and questions, and, in the case of students, evaluatives.

The Survey of Study Habits and Attitudes (SSHA), Form C, College level (Brown & Holtzman, 1967) was administered at the beginning and end of a 15-week semester. Independent factor analyses have raised questions about the validity of the hierarchical subtest structure of the SSHA (Bray, Maxwell, & Schmeck, 1980; Khan & Roberts, 1975), but the validity of the total score is considered credible, barring the usual limitations of self-report inventories. Reliability coefficients were estimated for both the pretest and posttest using Cronbach's (1951) alpha with the SPSS-X statistical package (SPSS-X, Inc., 1986). The alpha coefficients, measures of reliability based on internal consistency, were excellent, .93 for the pretest and .95 for the posttest.

Findings

Multiple regression analysis

The regression equation (Pedhazur, 1982) used to test the hypothesis incorporated five variables: the SSHA pretest score, used to control for variance in study habits and attitudes with which students began the semester; the SSHA posttest score, the dependent variable; and three independent variables, total words, total questions, and total evaluatives written by students. Table 1 displays the means (M) and standard deviations (SD) for these variables. The SSHA means represent the average score on a 5-point range with 5 the most desirable response and 1 the least desirable.

Insert Table 1 about here

Great variability is evident in words, questions, and evaluatives, but far less in pretest and posttest scores. As the mean for words indicates, students

averaged more than 700 words in their journals, but the standard deviation for words was over 400, confirming what had been observed in pilot studies, that some students wrote copiously, others very little. The low mean for questions reflects the fact that only 12 students wrote questions at all. By contrast, 34 of the 38 wrote at least one evaluative during the study, but as the standard deviation indicates, those who wrote evaluatives spanned a wide range, from only 1 to more than 20.

The correlation matrix for these variables is shown in Table 2 which reveals the relative significance and meaningfulness of interrelationships among the variables. The largest significant correlation obtains between the pretest and the posttest ($r = .84$, $p < .001$); that is, students' initial scores for study habits and attitudes was the single best predictor of scores 15 weeks later. Significant correlations among the independent variables were entirely expected: the questions and evaluatives variables are in effect embedded within the words variable. These correlations, in fact, form part of the rationale for the use of multiple regression (Pedhazur, 1982).

Insert Table 2 about here

In the multiple regression equation, the pretest was entered first to control for variability among students at the beginning of the semester. The three independent variables were then entered simultaneously into the equation to test their combined effect on the SSHA posttest, the dependent variable. Table 3 summarizes the regression analysis and its associated F-test.

Insert Table 3 about here

With a multiple R of .838, the pretest accounted for 70.2% of the variance in the posttest. The three independent variables together accounted for an additional 13.4% of the variance in the dependent measure. An F-test of the R^2 increment for the three independent variables together was significant ($p < .001$) with 3 and 33 degrees of freedom. The hypothesis was therefore supported.

Supplementary Analyses

As the data were examined, differences in volume of writing, both between the two instructors and from journal to journal, became apparent. Also obvious was a high frequency of question asking by instructors. The number of subjects precluded multivariate analysis with more variables, so supplementary analyses focused on the intercorrelations among teacher variables and student variables as a means of identifying avenues for future research. Table 4 shows the descriptive statistics for subjects by teacher.

Insert Table 4 about here

As the table shows, striking differences in volume of writing by the two teachers were also accompanied by similarly striking differences in the volume of writing by students. To explore the relationships further, a correlation matrix was calculated combining all the student variables with two teacher variables. Table 5 displays this matrix, highlighting just the correlations of student variables with teacher variables.

Insert Table 5 about here

The significant and meaningful correlation between teacher words and teacher questions (r = .66, p < .001) would be expected, as it was with the student variables, since the questions variable is embedded within the words variable. Of greater interest are the significant and marginally meaningful correlations between teacher questions and two student variables, evaluatives (r = .29, p < .05) and student words (r = .35, p < .05). The most important relationships, however, appear to involve teacher volume of writing and student production of both volume in general and evaluatives in particular. A highly significant and meaningful correlation obtains between teacher words and student evaluatives (r = .70, p < .001) and an even more meaningful correlations is found between teacher words and student words (r = .80, p < .001). These correlations do not identify causal relationships, of course, but they do point strongly to directions for future research in the effort to account for additional posttest variance.

Descriptive Findings

Functions for which students used the journals. A total of 14 different functions were observed, although some of these represented groupings of similar categories. The 14 functions and their relative frequencies are shown in Table 6. The first six of the categories shown in the table were drawn from the work of Staton, Shuy, and Kreeft (1982b). The next three categories were obvious results of the prompts given on the weekly progress sheets, while the last five

appeared to be outcomes of the dialogic and interpersonal interactions that developed in the journals.

Insert Table 6 about here

Given the structure of the journal, it was not surprising that students used their entries to report academic experiences (25%), to answer teacher questions (12%), to list upcoming assignments (11%), and to report their own academic behavior (8%). Taken together, these functions accounted for over half of the functional observations made of student writing. Somewhat less expected was the fact that about one-quarter of the functional observations were instances of using the journals in much more personal ways: to express emotions (11%), to give opinions or complain (9%), and to report personal experience (6%). Two of the independent variables in the multiple regression analysis were functions: evaluating represented a substantial 8% of the observations, but questioning was a function for which students used their journals only rarely, less than 1% of the observations.

Functions for which instructors used journals. Less diversity was evident in the instructors' functional uses of journal entries, not a surprising finding since the instructors had agreed in advance on an agenda designed to bring about specified student outcomes. Almost a third of teacher entries was question asking (32%), and almost a quarter was praising, affirming, or encouraging (24%). Together these two functions, agreed upon in advance by the instructors to be primary strategies, represented over half of the functions for which the instructors used the journals. Less expected was the finding that the

instructors used their entries to a substantial degree to suggest, advise, or give information (16%) and to give opinions or complain (11%). These four functions were not only the most frequent in teacher entries, but together they represented over 80% of the observations; another six functions for which teachers used their journals occurred much more rarely.

Substantial differences were also observed between the two teachers, the most striking of these in relation to question asking. For one teacher, asking questions represented 46% of the functional observations, while for the other teacher, this function accounted for just 29%. One teacher reported personal experience 14 times, the other not at all. On the other hand, the two were virtually the same in the rates with which they offered praise (25% and 24%) and advice (14% and 16%).

Topics addressed by students in their journal writing. Academic topics accounted for 85% of the total in students' journal writing. Assignments and classes accounted for over half of these, grades and academic strategies for another one-third. Tutors and tutoring, the student her/himself, and instructors together accounted for much smaller proportions. The preponderance of academic topics no doubt reflects not only the structure of the journals, but also the emphasis and direction of teacher entries. Nevertheless, it is interesting to note that 15% of the topics raised by students were personal, and that these topics represented a wide range of concerns.

Insert Table 7 about here

Another area of interest in students' treatments of topics concerned the generality or specificity with which they discussed classes and assignments. Theoretically, one would surmise that greater degrees of specificity would indicate greater self-analysis and insight on the part of the student. Moreover, instructors would have more information upon which to base their responses when students offered more specificity in the journals. When discussing classes, students were specific more than 93% of the time, but when they discussed assignments, their remarks were specific only 70% of the time.

Insert Table 8 about here

This greater degree of generality in discussing assignments was thought to represent a self-protective stance; that is, discussion of classes did not necessarily involve mentioning their performance, but discussion of assignments usually did. Some students may therefore have avoided specificity in discussing assignments, either because doing so called for more detailed analysis than they were able or wished to do, or because doing so meant revealing to the teacher an element of poor performance on their part. This issue leads to an analysis of the degree to which students were positive or negative in their treatment of grades and academic strategies as topics.

As Table 9 shows, students displayed a very high degree of positivity in discussing both grades and academic strategies: in both cases, their remarks were positive about three-quarters of the time.

Insert Table 9 about here

This optimistic tone in discussing their grades was not in fact reflected in the actual grades the students received. As "high risk" students, most faced a great challenge even with the developmental basic skills courses, and most were also enrolled in one or two regular college courses which usually posed even greater challenges. Among such students, grade point averages above 3.0 are rare; a more realistic measure of success is whether or not the students manage to remain in good academic standing as they enter their second semester. It is therefore apparent that students were much more likely to report good grades when they received them than they were to report poor grades. Although this tendency is understandable, it may also undermine to a degree the instructor's ability to help students confront and resolve academic problems. In the community college where this study was conducted, the instructors of this course received actual progress reports reflecting students' grades at mid-semester. Such a mechanism seems important, as the teacher can use journal entries to heap praise on the student's reports of good grades, but the progress reports to urge students who cannot or will not report poor grades to address the problems squarely. Of course, the success of such confrontations depends upon a delicate balance of forthrightness and sensitivity on the part of the instructor.

Topics addressed by teachers in their journal writing. Over 90% of the instructors entries addressed academic topics. Given the instructors' agenda, this is not surprising. When instructors did speak of non-academic topics, it was almost always to acknowledge a personal topic raised by a student rather than

to introduce a topic of personal interest to the instructor. Moreover, academic topics discussed by the instructors matched closely those discussed by students, a congruence not observed in the functions displayed by students and teachers. This commonality of topics can be seen in overall frequency tabulations, but an interesting question is how individual student-teacher dyads managed to raise and sustain topics in their dialogue. Morroy (1985) studied linguistic devices used to maintain interaction in dialogue journals; the overall congruence between student and teacher topics indicates that the devices identified by Morroy were probably operant in these dialogues.

Interactions. Semester-long interactions were observed by close analysis of 12 randomly selected journals. The uniqueness of each individual dialogue was confirmed, but some general observations could be made. Appreciating the flavor of the dialogues, however, necessitates examining some of the individual interactions. Bearing in mind that the dialogues represented a rich diversity, two dialogues shown below can help illustrate the range. Donna and Earl (both pseudonyms) were very different students. In her journal, Donna repeatedly demonstrated that she was a conscientious and self-reliant student; her stance permitted her and her teacher to discuss academic strategies in detailed ways that typify the goals of dialogue journal writing in this study:

Teacher: When you say you want to "concentrate more" and "study more"--what exactly do you mean you are going to do? I think this is something we all should talk about in class.

Donna: Studying always helps--pays off. It depends on how much time you put into your studying.

Teacher: I am very impressed with your level of self-awareness and your maturity & responsible style when it comes to studying. I think other students could take some tips from you.

Donna: What I mean by study more is, put more time into it, instead of an hour, make it two. I am glad you are impressed with my level of self-awareness. Sometimes I am not aware of things I do or can do, they come as a surprise.

Teacher: Developing that self-awareness is a critical step toward becoming an excellent student. Keep it up! Increasing the amount of time studying is, of course, a very good idea. But to get even more specific, exactly what do you do when you study for the two hours?

Donna: When I study for two hours, it is usually quiet. I go over all the notes I have taken. first I read it, memorize it, then I repeat everything I've read & learned without looking at my notes.

Teacher: Do you ever try writing things down to help you learn material from a textbook or your notes?

Donna: Yes, I write down things from a lecture or a textbook to help me study. Usually it is the important things I have to know, that I write down notes.

Teacher: I think it is excellent that you have such a high level of self-awareness about how you study. I'm sure you can see that it is paying off.

Donna: The worst event in my academic work this week was I had too many test which meant too much studying, my brain is dead now. I have a major test this friday (today). With all the studying I did I hope it will pay off. sometimes I can really study & still get low grades. I don't know why.

Teacher: I don't think your brain is dead. In fact, would you agree that the more you work it, the stronger it gets? (smile face drawing) How did you do on that test? If you study and still don't get the grades you want, you may be misjudging your own level of mastery or you may be studying inefficiently or maybe studying the wrong things. Do you think a tutor might help?

Donna: I agree, the more you work, the stronger your brain gets. On my test I received a C+ that's not great but I am always thankful not to fail. I have to study harder. I always study and I make sure to study the important information. The grades I get I earn them, I know when I do bad it's if I don't have enough time to study.

Teacher: I am so pleased to see the mature and hard-working approach you have developed in your studies. The college needs more students like you!

Donna: Thank you for the compliments. . . .

These entries represent only a fraction of the dialogue between Donna and her teacher. In fact, Donna's entries totaled more than 1500 words, more than double the mean for all 38 students. In sharp contrast to this is the dialogue between Earl and the same teacher. Earl wrote a total of 671 words, below the mean for all students. Earl arrived to register at the end of the first week of classes and thus missed all of his classes in the first week, and many of them in the second week also. Thus his dialogue with his teacher did not begin until the third week of classes. This behavior appeared to affect the teacher's attitude toward Earl, and she adopted a harsher tone with him than she had with other students. In the introductory pages of the journal, Earl said that he felt writing skills were the most important area for him to work on. She replied:

Teacher: Have you made an appointment with an English tutor yet? I agree with you that writing well is essential to success in college.

Earl: My most positive events are passing three tests this week. noting negative have come pass this week. I have and exam on friday in my math class.

Teacher: Congratulations on the three tests you passed. Have you caught up on the work you missed at the beginning of the semester in all of your classes? How did you do on the math exam?

There are subtle differences here between the instructor's response to Earl and what her responses were with Donna. She questioned him about tutoring before offering affirmation of his assessment of his writing ability; with another student, she might have declared how smart or self-aware he was and then

asked whether he planned to use tutors. After his report of passing three exams, she offered perfunctory congratulations followed by more questions. With other students, there was often more elaboration on the student's success or at least an exclamation point after the congratulations. Just as Donna was an easy student to like, Earl was an easy target of teacherly exasperation. In his journal, he blamed others for his poor grades, such as a teacher who would not permit him to take a make-up test later when he arrived late for the exam. He never used the free tutorial services and ignored the instructor's questions about it or offered weak excuses. Later in the term, he even pitted his teacher and basketball coach against one another in a grand manipulation to avoid tutoring. The following excerpts illustrate:

> Earl: I am trying hard, Because I don't want to let mother and father down, so I will work hard but at my own pace. Because I don't want to drop out, because I came to far to stop. I do good in the same class every week and that starting to be a headache because I'm not improving in other classes. Negatives this week: none. In Business class I have a very important paper to hand in and I need a good grade so I will pass the class because my progress report sounded not so good over telephone.
>
> Teacher: I haven't seen you in my office yet for the conference over your progress reports, but I think that looking at your grades will cause me to ask the same question I've been asking all semester: why don't you make some appointments with tutors for the classes that are causing you difficulty? . . .
>
> Earl: A tutor is time and time is something I don't have a lot of, because I have basketball and homework every day in every class. The only time I got is late and tutor don't work after practice. The class I fail we took two exam and I pass both with high grade. That will lift my grade from F. Negatives: homework I have a lot of it. In Business I have a very important paper to give so I can get 10 extra points.
>
> Teacher: If you want to go to school, homework comes with the deal! If you see doing homework as a negative even, do you think you could be making it harder for yourself than if you had a positive attitude about it? How late does practice last? I'd like to go over your schedule to see if I could help you find time to see tutors.

Earl: My coach is getting a tutor for me in math so my homework can be done more easyer then I'am now.

In fact, Earl had plenty of free time between classes and before practice to meet with tutors, and his basketball coach had told him to go to the tutorial center for help in all his classes. The teacher's replies, however, adhered to the style set earlier. She questioned him in a severe tone abut his failure to use tutors in light of his grades, ignored his mention of raising his grade with high marks on two exams, lectured him on the necessity of homework, and finally, offered to "help" him find time for tutors, an offer that was in fact a plan to confront him about his negligence in failing to use tutorial services.

Whether a more supportive and affirming stance by the instructor would have encouraged different behavior in Earl is moot. More relevant questions, perhaps, are how teachers can respond to students such as Earl who do not fit the "good student" mold and how dialogue journal writing can be used to bridge such a gap even in the face of vast differences between the student and instructor in culture, values, or temperament.

While Earl and Donna represent perhaps the two extremes on a continuum, it was clear that both instructors appeared to be affected by the "match" between their temperament and style and the student's. At times, the match afforded interactions characterized by mutual warmth, respect, and admiration; at other times, interactions were distant or even contentious. It appeared that when the teacher elaborated more, the student did too. In the dialogues, both teachers appeared driven by the goal of providing praise to boost self-esteem, although as the dialogue with Earl illustrates, that mechanism broke down at times.

Both teachers asked many questions, at their best, questions that probed and encouraged students to elaborate their thinking about their study methods, increase their self-awareness, and refine their decision-making and problem-solving processes. Less effective were questions with an obvious "right" answer; these did not ask what a student thought so much as they asked that the student agree with the instructor. Another interesting facet of question asking by teachers is that there appeared to be an inverse ratio operating between the instructor's questions and students' answers to those questions. The more questions the teacher asked, in general, the lower was the proportion of those questions to which the student responded.

These brief discussions of the descriptive part of the investigation cannot convey the richness which is evident when examining the dialogues in depth. For more extensive quotations along with detailed discussion of topic, function, and interactions, see the dissertation upon which this paper is based (Schatzberg-Smith, 1988). Perhaps the most important point to make is that even with instructor as a constant, great individual variation was observed. Some students raised personal issues regularly, others not at all. Some responded to questions with detailed self-analysis, others answered perfunctorily, and still others ignored the instructors' questions. The individual variation in the dialogues is at once the marvel and the mystery of the process.

Discussion

The results of this study must be viewed with several limitations in mind. First, the number of students in the study was much smaller than had originally been planned, due to several unanticipated changes in enrollment patterns,

testing procedures, and testing instruments used for placement in developmental courses. The net effect of these changes may have been an academically weaker group of students placed in the Academic Development course than in previous years. Second, one of the two instructors was the researcher herself, a fact which may have in part accounted for some of the group and teacher differences in variables. Moreover, the researcher/instructor taught all of her sections in the morning while the other instructor's sections were scheduled in the afternoon, factors which may also have affected both attendance and the relative ability levels of the two teacher's students, since common wisdom has it that better students tend to register earlier, thereby obtaining the more desired morning sections. Third, experiences other than the dialogue journal writing certainly affected the students' growth, and in the context of these students' educational lives, these variables cannot realistically or conscionably be controlled. These included factors such as instruction in other courses; interactions with other instructors, tutors, peers, counselors, and others; and general maturation and socialization processes. Finally, the college itself was unique in its proportions of rural, urban, and suburban students. In spite of these delimitations, a number of tentative conclusions can be drawn.

The regression analysis showed that at least three variables in students' writing accounted for a substantial and significant proportion of the variance in students' self-reported changes in study habits and attitudes. The inference is that this dialogue journal is a viable tool for helping academically weak community college students develop the procedural schemata and metacognitive strategies fundamental to success in college. This is indeed writing which can positively influence the initial college experience of underprepared students.

The literature on writing as a mode of learning suggested that writing is a transaction in which knowledge is made more useful because it is made accessible and personal (Strong, 1983, p. 36). Underprepared college students are usually exposed to study skills instruction. Teachers may assign reading, may model the skills, may require students to practice them, and may test the student's understanding of them. Typically, such courses will also include discussions of attitudes that influence the student's implementation of study skills, issues such as goal setting and self-assessment, delay avoidance patterns, attitudes toward teachers and education in general, and relationships between the students' affective postures and their study behavior. Such discussions may or may not be of immediate concern or value to the student. In the dialogue journals, however, the student has the opportunity to discuss with a caring and knowledgeable instructor the application of given study practices to the specific academic situation which that student is simultaneously trying to negotiate.

Through the dialogue journals, instructors can help student/writers to activate, instantiate, and refine procedural schemata for dealing with the situations of the moment. As Emig (1977) suggested, writing is a powerful learning device because it is continuously reinforcing. The journal is a forum where students can analyze the nature of specific academic practices or stances relative to experiences they are encountering, and synthesize into their own repertoire the processes and ideas they find useful. The instructor's contributions to the dialogue helps them make the connections between abstract concepts and concrete experiences.

Murray called writing a conversation in which the two selves collaborate (1982, p. 140). Underprepared college students generally find writing laborious and may never have experienced it as the heuristic it can be. Through writing their own entries, students may engage in the scenario described by Murray: "a problem is spotted, discussed, defined; solutions are proposed, rejected, suggested, attempted, tested, discarded, accepted" (p. 140). Writing not alone but with the added input of their instructor, students experience writing in a way that will help them address the dilemmas they face as they begin to negotiate access to academe. The experience also demonstrates for them most forcefully the power of writing and delivers to them a tool for problem solving that they can later use independently. Quite simply, the results of this study suggest that these processes and outcomes become accessible in direct proportion to the amount of writing they do.

To say that dialogue journal writing fosters schema formation and elaboration, development of metacognitive abilities, and promotion of writing as a problem solving vehicle is to confirm the potential of dialogue journals for helping students acquire more effective cognitive functioning. In fact, Staton (1984) established the mechanisms whereby student-teacher interaction in dialogue journals can promote the acquisition of practical reasoning ability in students. Her study examined these processes in elementary-age youngsters, but the results of the current study suggest that the same processes and outcomes can be expected with older learners.

In the dialogues written by students in this sample, the incidence of question asking was low, so low that no conclusions can be drawn about the extent to which question asking by students may contribute to improved academic ability.

Question asking is a component of the "involvement" identified by Easton and Ginsberg (1985) as critical for the success of underprepared college students. Seen as an element of hypothesis formation, question asking promotes schema development (Rumelhart, 1980). Question asking also seems important in the maintenance of genuine dialogue (Morroy, 1985). But does genuine dialogue occur if only the instructor asks questions?

Students have been accustomed to classrooms in which the teacher asks questions for which s/he already has the answers and students are rewarded for producing those "right" answers (Staton et al., 1982b). Dialogue journals afforded the opportunity to alter this dynamic by creating a context in which students could ask questions. Nonetheless, few did. These results may indicate that students do not easily adopt a stance of questioning their instructor, and mechanisms must be developed--both within the dialogue journal and in the larger context of the classroom--to encourage more question asking by students.

A rather striking result of this study was the correlation discovered between teacher volume of writing and student volume of writing. While the correlation does not reveal why these two variables are related, any number of factors come to mind, such as teacher style, students' perceptions of their teacher's interest in them, and differences in the groups of students. Most previous research of dialogue journal writing examined the dialogues of just one teacher with students. One exception was Markman (1983) whose study included five instructors; however, she did not examine any characteristics of the instructors' writing. The results of the current study provide some preliminary evidence of the importance of teacher variables in dialogue journal writing.

Certain teacher strategies appear to be more effective for encouraging productive dialogue. For one, teacher questions may help spark dialogue, but if they are too numerous or too rhetorical they may have the opposite effect of inhibiting both the dialogue and question asking on the part of students. Broad and consistent use of praise and affirmation to display "unconditional positive regard (Rogers, 1967, p. 249) for students is one of the best ways to foster the openness and respect that lead to genuine dialogue. Teachers must also respond to students at length. The length must necessarily be balanced by the need of the teacher to respond to many students, but in general, brief responses imply less interest in and concern for the student than do lengthier responses.

Implications

Underprepared students arrive at the doors of our colleges with a myriad of problems. While basic skills instruction will address some of these, this alone will not enable such students to persist in college. Other interventions must be developed which affect the initial college experience of poorly prepared students, since recent research on student retention indicates that the highest attrition occurs during and immediately after the first semester (Tinto, 1987). Indeed, the first few weeks or even days may dramatically influence--for better or ill--a student's decision to persist or leave.

Tinto's research suggests that involvement in the life of the campus is a crucial component of retention. Involvement could be with peers, with campus organizations, with faculty in academic pursuits, with support staff; whatever form it takes, this involvement must allow the student to feel that s/he belongs, is a valued member of the community. For underprepared students, a sense of isolation from the mainstream of the college community is a danger, and at

community colleges, the problem is even more acute if students do not reside on campus and generally leave the campus immediately upon finishing classes. Halpin (1983) has confirmed Tinto's model in the community college, but his results indicate that faculty involvements are even more crucial in the community college where other forums for interaction are more limited. All of this points to the dialogue journal as a means of fostering student involvement with faculty and communicating to students the invitation to join the community of scholars.

The structured dialogue journal has been shown in this study to be an effective device for helping underprepared students at a community college achieve their goals by increasing their awareness of and control over their academic behavior. Many more variables than the three examined may be an integral part of the process or affect it, so that the study may have raised more questions than it answered. Little doubt remains, however, that the experience of engaging in dialogue journal writing is a positive one with important consequences for the initial college experience of students who lack traditional levels of preparation for college work. Staton (1984) asserted that dialogic encounters between students and teachers "have always been central to both academic and personal growth (p. 523). The results of this study lead to the conclusion that dialogue journal writing provides, for instructors inclined to use it, an effective and uniquely affirmative way to engage students in the dialogic interactions that encourage them to persist in higher education.

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Figure 1

KEYS TO SUCCESS WEEKLY PROGRESS SHEET Date-->

Student's response after reading instructor's comments and questions:

Best or most positive events in your academic work this week:

Worst or most negative events in your academic work this week:

Assignments, papers, exams, etc. due in the coming week
(or needing long-range planning):

Instructor's comments or questions:

Table 1

Descriptive Statistics for All Subjects, N=38

Variables	M	SD
Words	719.18	424.38
Questions	.50	1.08
Evaluatives	7.05	6.25
Pretest	3.50	.48
Posttest	3.65	.48

Table 2

Correlation Matrix of Student Variables Used in Regression Equation

Variables	Words	Questions	Evaluatives	Pretest	Posttest
Words	1.00				
Questions	.40**	1.00			
Evaluatives	.72***	.33*	1.00		
Pretest	.13	-.05	.04	1.00	
Posttest	.37*	.26	.34*	.84***	1.00

*p<.05 **p<.01 ***p<.001

Table 3

Multiple Regression Summary Table

Step/Variable	Multiple R	R^2	R^2 Change	F	F Change	F Change Significance
1. Pretest	.838	.702	.702	84.84	84.84	$p < .001$
2. Evaluatives						
Questions						
Words	.914	.836	.134	42.06	8.98	$p < .001$

Table 4

Descriptive Statistics for Subjects by Teacher

	Teacher 1 (n=15)		Teacher 2 (n=23)	
Variables	M	SD	M	SD
Words	365.93	232.04	949.57	357.86
Questions	.20	0.56	.70	1.30
Evaluatives	2.13	1.89	10.26	6.01
Pretest	3.32	.45	3.61	.48
Posttest	3.43	.36	3.79	.50

Table 5

Correlation Matrix of Student and Teacher Variables

Variables	1	2	3	4	5	6	7
1. Stu. Words	1.00						
2. Stu. Questions	---	1.00					
3. Stu. Evaluatives	---	---	1.00				
4. Tchr. Words	.80**	.31*	.70**	1.00			
5. Tchr. Questions	.35*	-.02	.29*	.66**	1.00		
6. SSHA Pretest	---	---	---	.20	-.09	1.00	
7. SSHA Posttest	---	---	---	.35*	-.13	---	1.00

*p<.05 **p<.001

Table 6

Functions for Which Students Used Journals

Function	Instances	%
Give opinions/complain	288	9.0
Evaluate	268	8.4
Report personal experience	176	5.5
Promise	29	.9
Ask questions	19	.6
Apologize	9	.3
Report academic experience	782	24.5
List upcoming assignments	344	10.8
Report own academic behavior	242	7.6
Answer teacher questions	383	12.0
Express emotions	353	11.1
Report plans	146	4.6
Predict academic performance	90	2.8
Agree with teacher comment	58	1.8
Totals	3,187	99.9*

*Slightly less than 100% due to rounding errors.

Table 7

Academic vs. Personal Topics in Student Journal Writing

Topics	Instances	%
Academic	2,527	84.9
Personal	449	15.1
All	2,976	100.0

Table 8

Specificity and Generality of Academic Topics in Student Writing

Topics	Classes		Assignments	
	Instances	%	Instances	%
Specific	591	93.2	422	69.6
General	43	6.8	184	30.4
Total	634	100.0	606	100.0

Table 9

Positive vs. Negative Treatment of Topics: Grades and Strategies

Topics	Grades		Academic Strategies	
	Instances	%	Instances	%
Positives	382	76.6	308	73.2
Negatives	117	23.4	113	26.8
Total	499	100.0	421	100.0